

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1639MLS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

|              |    |        |  |
|--------------|----|--------|--|
| NEWS         | 1  |        | Web Page URLs for STN Seminar Schedule - N. America  |
| NEWS         | 2  |        | "Ask CAS" for self-help around the clock   |
| NEWS         | 3  | SEP 01 | New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!  |
| NEWS         | 4  | OCT 28 | KOREAPAT now available on STN  |
| NEWS         | 5  | NOV 30 | PHAR reloaded with additional data   |
| NEWS         | 6  | DEC 01 | LISA now available on STN  |
| NEWS         | 7  | DEC 09 | 12 databases to be removed from STN on December 31, 2004   |
| NEWS         | 8  | DEC 15 | MEDLINE update schedule for December 2004  |
| NEWS         | 9  | DEC 17 | ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected   |
| NEWS         | 10 | DEC 17 | COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected   |
| NEWS         | 11 | DEC 17 | SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected  |
| NEWS         | 12 | DEC 17 | CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected   |
| NEWS         | 13 | DEC 17 | THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB   |
| NEWS         | 14 | DEC 30 | EPFULL: New patent full text database to be available on STN   |
| NEWS         | 15 | DEC 30 | CAPLUS - PATENT COVERAGE EXPANDED  |
| NEWS         | 16 | JAN 03 | No connect-hour charges in EPFULL during January and February 2005   |
| NEWS         | 17 | FEB 25 | CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered   |
| NEWS         | 18 | FEB 10 | STN Patent Forums to be held in March 2005   |
| NEWS         | 19 | FEB 16 | STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005  |
| NEWS         | 20 | FEB 28 | PATDPAFULL - New display fields provide for legal status data from INPADOC   |
| NEWS         | 21 | FEB 28 | BABS - Current-awareness alerts (SDIs) available   |
| NEWS         | 22 | FEB 28 | MEDLINE/LMEDLINE reloaded  |
| NEWS         | 23 | MAR 02 | GBFULL: New full-text patent database on STN   |
| NEWS         | 24 | MAR 03 | REGISTRY/ZREGISTRY - Sequence annotations enhanced   |
| NEWS         | 25 | MAR 03 | MEDLINE file segment of TOXCENTER reloaded   |
| NEWS EXPRESS |    |        | JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005 |
| NEWS HOURS   |    |        | STN Operating Hours Plus Help Desk Availability  |
| NEWS INTER   |    |        | General Internet Information   |
| NEWS LOGIN   |    |        | Welcome Banner and News Items  |
| NEWS PHONE   |    |        | Direct Dial and Telecommunication Network Access to STN  |
| NEWS WWW     |    |        | CAS World Wide Web Site (general information)  |

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 20:00:38 ON 19 MAR 2005

=> fil medline biosis caplus embase wpids  
COST IN U.S. DOLLARS

| SINCE FILE | TOTAL   |
|------------|---------|
| ENTRY      | SESSION |
| 0.21       | 0.21    |

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 20:01:04 ON 19 MAR 2005

FILE 'BIOSIS' ENTERED AT 20:01:04 ON 19 MAR 2005  
Copyright (c) 2005 The Thomson Corporation

FILE 'CAPLUS' ENTERED AT 20:01:04 ON 19 MAR 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EMBASE' ENTERED AT 20:01:04 ON 19 MAR 2005  
COPYRIGHT (C) 2005 Elsevier Inc. All rights reserved.

FILE 'WPIDS' ENTERED AT 20:01:04 ON 19 MAR 2005  
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

=> ribozyme and family and (library or libraries)  
L1 30 RIBOZYME AND FAMILY AND (LIBRARY OR LIBRARIES)

=> dup rem l1  
PROCESSING COMPLETED FOR L1  
L2 20 DUP REM L1 (10 DUPLICATES REMOVED)

<-----User Break----->

SEARCH ENDED BY USER

=> py>1993 and l1  
<-----User Break----->

SEARCH ENDED BY USER

=> t ti l2 1-20

L2 ANSWER 1 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Dedifferentiating a differentiated mammalian cell comprises administering an agent that increases G1 Cdk complex or cell marker expression, promotes cell cycle reentry, or decreases differentiation marker expression.

L2 ANSWER 2 OF 20 MEDLINE on STN DUPLICATE 1  
TI Use of a randomized hybrid ribozyme library for identification of genes involved in muscle differentiation.

L2 ANSWER 3 OF 20 MEDLINE on STN DUPLICATE 2  
TI Identification of metastasis-related genes in a mouse model using a

library of randomized ribozymes.

- L2 ANSWER 4 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI A composition for preventing or treating viral infections associated with high lethality and incapacity (e.g. Ebola virus) comprises a filamentous phage presenting a ligand on its surface, and a physiological excipient or diluent.
- L2 ANSWER 5 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Evaluating the differentiation of totipotent, nearly totipotent, or pluripotent stem cells in response to chemical or biological agents, comprises exposing the cells to one or more putative differentiation inducing conditions.
- L2 ANSWER 6 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Increasing the levels of a protein in a Peyer's patch cell, useful for targeted vaccine or drug delivery, comprises delivering to the Peyer's patch cell a transcription factor or an activator of a transcription factor.
- L2 ANSWER 7 OF 20 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN  
TI New tools for functional mammalian cancer genetics.
- L2 ANSWER 8 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI New isolated or recombinant Bcl-B nucleic acids and polypeptides, for treating a disorder associated with apoptosis, such as cell degenerative or proliferative disorder e.g. cancer, Alzheimer's disease or Parkinson's disease.
- L2 ANSWER 9 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI New human influenza virus comprising an RNA-sequence encoding a modified RNA-polymerase, useful for preparing agents for therapeutic and prophylactic vaccination, or treating a growing tumor or a chronic infectious disease.
- L2 ANSWER 10 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Novel protein complex comprising proteins useful for selecting modulators for treating physiological disorders e.g. neuronal death, pancreatic cancer, glucose transport disorders and diabetes mellitus.
- L2 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN  
TI Identification of a caspase 3-independent role of pro-apoptotic factor Bak in TNF- $\alpha$ -induced apoptosis
- L2 ANSWER 12 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI New regulatory sequences from the fascin gene, useful for providing dendritic cell-specific expression of e.g. antigens, e.g. for vaccination against tumors and infections.
- L2 ANSWER 13 OF 20 MEDLINE on STN DUPLICATE 3  
TI A new and efficient DNA enzyme for the sequence-specific cleavage of RNA.
- L2 ANSWER 14 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI New nucleic acid encoding human organic cation transporter-like protein, used for prevention, treatment and diagnosis of e.g. neurological, behavioral or sleep disorders.
- L2 ANSWER 15 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Production of transgenic plants by transforming metabolically defective plants with DNA that can complement the defect, eliminating need for e.g. antibiotic resistance markers.

L2 ANSWER 16 OF 20 MEDLINE on STN DUPLICATE 4  
 TI RNA aptamers that specifically bind to a 16S ribosomal RNA decoding region construct.

L2 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN  
 TI Human and murine isoforms of the Ob receptor and their use in methods of identifying compounds that modulate body weight

L2 ANSWER 18 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 TI New receptor interacting protein-associated protein-2, used to develop products for treating, e.g. septic shock, tumors or HIV infection.

L2 ANSWER 19 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 TI Human haematopoietin receptor Hu-B1.219 - useful in design of molecular probes for prenatal testing and cancer diagnosis.

L2 ANSWER 20 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI A 127 kDa component of a UV-damaged DNA-binding complex, which is defective in some xeroderma pigmentosum group E patients, is homologous to a slime mold protein.

=> ribozyme and family and (library or libraries) and (motif or gene or protein)  
 L3 28 RIBOZYME AND FAMILY AND (LIBRARY OR LIBRARIES) AND (MOTIF OR GENE OR PROTEIN)

=> dup rem 13  
 PROCESSING COMPLETED FOR L3  
 L4 20 DUP REM L3 (8 DUPLICATES REMOVED)

=> t ti 14 1-20

L4 ANSWER 1 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 TI Dedifferentiating a differentiated mammalian cell comprises administering an agent that increases G1 Cdk complex or cell marker expression, promotes cell cycle reentry, or decreases differentiation marker expression.

L4 ANSWER 2 OF 20 MEDLINE on STN DUPLICATE 1  
 TI Use of a randomized hybrid ribozyme library for identification of genes involved in muscle differentiation.

L4 ANSWER 3 OF 20 MEDLINE on STN DUPLICATE 2  
 TI Identification of metastasis-related genes in a mouse model using a library of randomized ribozymes.

L4 ANSWER 4 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 TI A composition for preventing or treating viral infections associated with high lethality and incapacity (e.g. Ebola virus) comprises a filamentous phage presenting a ligand on its surface, and a physiological excipient or diluent.

L4 ANSWER 5 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 TI Evaluating the differentiation of totipotent, nearly totipotent, or pluripotent stem cells in response to chemical or biological agents, comprises exposing the cells to one or more putative differentiation inducing conditions.

L4 ANSWER 6 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 TI Increasing the levels of a protein in a Peyer's patch cell, useful for targeted vaccine or drug delivery, comprises delivering to the Peyer's patch cell a transcription factor or an activator of a transcription factor.

L4 ANSWER 7 OF 20 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN  
TI New tools for functional mammalian cancer genetics.

L4 ANSWER 8 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI New isolated or recombinant Bcl-B nucleic acids and polypeptides, for  
treating a disorder associated with apoptosis, such as cell degenerative  
or proliferative disorder e.g. cancer, Alzheimer's disease or Parkinson's  
disease.

L4 ANSWER 9 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI New human influenza virus comprising an RNA-sequence encoding a modified  
RNA-polymerase, useful for preparing agents for therapeutic and  
prophylactic vaccination, or treating a growing tumor or a chronic  
infectious disease.

L4 ANSWER 10 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Novel protein complex comprising proteins useful for selecting  
modulators for treating physiological disorders e.g. neuronal death,  
pancreatic cancer, glucose transport disorders and diabetes mellitus.

L4 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN  
TI Identification of a caspase 3-independent role of pro-apoptotic factor Bak  
in TNF- $\alpha$ -induced apoptosis

L4 ANSWER 12 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI New regulatory sequences from the fascin gene, useful for  
providing dendritic cell-specific expression of e.g. antigens, e.g. for  
vaccination against tumors and infections.

L4 ANSWER 13 OF 20 MEDLINE on STN  
TI A new and efficient DNA enzyme for the sequence-specific cleavage of RNA.

L4 ANSWER 14 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI New nucleic acid encoding human organic cation transporter-like  
protein, used for prevention, treatment and diagnosis of e.g.  
neurological, behavioral or sleep disorders.

L4 ANSWER 15 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Production of transgenic plants by transforming metabolically defective  
plants with DNA that can complement the defect, eliminating need for e.g.  
antibiotic resistance markers.

L4 ANSWER 16 OF 20 MEDLINE on STN DUPLICATE 3  
TI RNA aptamers that specifically bind to a 16S ribosomal RNA decoding region  
construct.

L4 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN  
TI Human and murine isoforms of the Ob receptor and their use in methods of  
identifying compounds that modulate body weight

L4 ANSWER 18 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI New receptor interacting protein-associated protein-2,  
used to develop products for treating, e.g. septic shock, tumors or HIV  
infection.

L4 ANSWER 19 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Human haematopoietin receptor Hu-B1.219 - useful in design of molecular  
probes for prenatal testing and cancer diagnosis.

L4 ANSWER 20 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN

TI A 127 kDa component of a UV-damaged DNA-binding complex, which is defective in some xeroderma pigmentosum group E patients, is homologous to a slime mold protein.

=> ribozyme and motif and (library or libraries) and (gene or protein)  
L5 34 RIBOZYME AND MOTIF AND (LIBRARY OR LIBRARIES) AND (GENE OR PROTEIN)  
IN)

=> ribozyme and motif and (library or libraries) and family  
MISSING TERM AFTER LIBRARIES) AND  
Operators must be followed by a search term, L-number, or query name.

=> ribozyme and motif and (library or libraries) and family  
MISSING TERM AFTER LIBRARIES) AND  
Operators must be followed by a search term, L-number, or query name.

=> ribozyme and motif and family and (library or libraries)  
L6 4 RIBOZYME AND MOTIF AND FAMILY AND (LIBRARY OR LIBRARIES)

=> dup rem l6  
PROCESSING COMPLETED FOR L6  
L7 1 DUP REM L6 (3 DUPLICATES REMOVED)

=> d ibib abs l7

L7 ANSWER 1 OF 1 MEDLINE on STN DUPLICATE 1  
ACCESSION NUMBER: 2000474248 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10908352  
TITLE: RNA aptamers that specifically bind to a 16S ribosomal RNA decoding region construct.  
AUTHOR: Tok J B; Cho J; Rando R R  
CORPORATE SOURCE: Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, 45 Shattuck Street, Boston, MA 02115, USA.  
CONTRACT NUMBER: EY-12375 (NEI)  
SOURCE: Nucleic acids research, (2000 Aug 1) 28 (15) 2902-10. Journal code: 0411011. ISSN: 1362-4962.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200010  
ENTRY DATE: Entered STN: 20001012  
Last Updated on STN: 20010521  
Entered Medline: 20001005

AB RNA-RNA recognition is a critical process in controlling many key biological events, such as translation and ribozyme functions. The recognition process governing RNA-RNA interactions can involve complementary Watson-Crick (WC) base pair binding, or can involve binding through tertiary structural interaction. Hence, it is of interest to determine which of the RNA-RNA binding events might emerge through an in vitro selection process. The A-site of the 16S rRNA decoding region was chosen as the target, both because it possesses several different RNA structural motifs, and because it is the rRNA site where codon/anticodon recognition occurs requiring recognition of both mRNA and tRNA. It is shown here that a single family of RNA molecules can be readily selected from two different sizes of RNA library. The tightest binding aptamer to the A-site 16S rRNA construct, 109.2-3, has its consensus sequences confined to a stem-loop region, which contains three nucleotides complementary to three of the four nucleotides in the stem-loop region of the A-site 16S rRNA. Point mutations on each of the three nucleotides on the stem-loop of the aptamer abolish its binding

capacity. These studies suggest that the RNA aptamer 109.2-3 interacts with the simple 27 nt A-site decoding region of 16S rRNA through their respective stem-loops. The most probable mode of interaction is through complementary WC base pairing, commonly referred to as a loop-loop 'kissing' motif. High affinity binding to the other structural motifs in the decoding region were not observed.

=> d his

(FILE 'HOME' ENTERED AT 20:00:38 ON 19 MAR 2005)

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 20:01:04 ON 19 MAR 2005

L1 30 RIBOZYME AND AND (LIBRARY OR LIBRARIES)  
 L2 20 DUP REM L1 (10 DUPLICATES REMOVED)  
 L3 28 RIBOZYME AND AND (LIBRARY OR LIBRARIES) AND (MOTIF OR GENE OR P  
 L4 20 DUP REM L3 (8 DUPLICATES REMOVED)  
 L5 34 RIBOZYME AND MOTIF AND (LIBRARY OR LIBRARIES) AND (GENE OR PROT  
 L6 4 RIBOZYME AND MOTIF AND AND (LIBRARY OR LIBRARIES)  
 L7 1 DUP REM L6 (3 DUPLICATES REMOVED)

=> d ibib abs 12 1-20

L2 ANSWER 1 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-441072 [41] WPIDS  
 CROSS REFERENCE: 2002-089852 [12]  
 DOC. NO. CPI: C2004-165400  
 TITLE: Dedifferentiating a differentiated mammalian cell  
 comprises administering an agent that increases G1 Cdk  
 complex or cell marker expression, promotes cell cycle  
 reentry, or decreases differentiation marker expression.  
 DERWENT CLASS: B04 D16  
 INVENTOR(S): KEATING, M T; ODELBURG, S J; POSS, K D  
 PATENT ASSIGNEE(S): (UTAH) UNIV UTAH RES FOUND  
 COUNTRY COUNT: 107  
 PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG  |
|---|------|----------|-----------|----|-----|
| WO 2004047747   | A2   | 20040610 | (200441)* | EN | 301 |
| RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE<br>LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW<br>W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE<br>DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG<br>KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM<br>PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US<br>UZ VC VN YU ZA ZM ZW |      |          |           |    |     |
| AU 2003300794   | A1   | 20040618 | (200471)  |    |     |

#### APPLICATION DETAILS:

| PATENT NO     | KIND | APPLICATION     | DATE     |
|---------------|------|-----------------|----------|
| WO 2004047747 | A2   | WO 2003-US37355 | 20031121 |
| AU 2003300794 | A1   | AU 2003-300794  | 20031121 |

#### FILING DETAILS:

| PATENT NO     | KIND        | PATENT NO     |
|---------------|-------------|---------------|
| AU 2003300794 | A1 Based on | WO 2004047747 |

AN 2004-441072 [41] WPIDS

CR 2002-089852 [12]

AB WO2004047747 A UPAB: 20041104

NOVELTY - Dedifferentiating a differentiated mammalian cell, comprises administering one or more agents which:

- (a) increases the expression and/or activity of a G1 Cdk complex;
- (b) decreases expression of one or more markers of differentiation;
- (c) promotes cell cycle reentry; or
- (d) increases the expression of one or more progenitor or stem cell markers.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method of regenerating mammalian tissues and/or organs, comprising contacting differentiated mammalian cells with an agent to dedifferentiate the differentiated mammalian cells, where the agent is capable of inducing dedifferentiation, and following dedifferentiation the mammalian cells are capable of differentiating to regenerate the mammalian tissues and/or organs;

(2) a method of screening to identify and/or characterize a dedifferentiation agent, where the dedifferentiation agent promotes dedifferentiation of one or more cell types;

(3) an agent that promotes dedifferentiation of one or more cell types identified by the method;

(4) a method of conducting a drug discovery business;

(5) a method of conducting a regenerative medicine business;

(6) a method of conducting a gene therapy business; and

(7) a packaged pharmaceutical comprising a preparation of expression constructs encoding a protein or transcript which upregulates the activity of a G1 phase cyclin dependent kinase (cdk), a pharmaceutical carrier, and instructions, written and/or pictorial, describing the use of the preparation for causing dedifferentiation of cells in a patient.

ACTIVITY - Vasotropic; Arteriosclerotic; Cytostatic; Osteopathic; Antiarthritic; Antirheumatic; Ophthalmological; Auditory; Respiratory-Gen.; Antidiabetic; Nephrotropic; Nootropic; Neuroprotective.

MECHANISM OF ACTION - Cell therapy.

USE - The method is useful for dedifferentiating a differentiated cell. The agent, which increases the mitotic activity of a G1 Cdk complex, is useful in the manufacture of a medicament for promoting dedifferentiation of differentiated mammalian cells. The expression construct encoding a protein or transcript which upregulates the activity of a G1 phase cdk may be used in the manufacture of medicament for causing dedifferentiation of cells in a patient (all claimed). The method is useful for regeneration therapies of cardiovascular diseases (e.g. atherosclerosis, coronary artery disease, obstructive vascular disease, or myocardial infarction) cancers and cancer-related conditions, joint diseases (e.g. rheumatoid arthritis, osteoarthritis, or osteoporosis), eye-related degeneration (e.g. cataracts, retinal and macular degeneration), aural-related degeneration (e.g. hearing loss), lung-related disorders (e.g. chronic obstructive pulmonary disease, cystic fibrosis or emphysema), metabolic disorders (e.g. diabetes), genitourinary problems (e.g. renal failure), neurologic disorders (e.g. dementia or Alzheimer's disease), and endocrine disorders (e.g. hypothyroidism).  
Dwg.0/0

L2 ANSWER 2 OF 20

MEDLINE on STN

DUPLICATE 1

ACCESSION NUMBER: 2004590558 MEDLINE

DOCUMENT NUMBER: PubMed ID: 15448151

TITLE: Use of a randomized hybrid ribozyme library for identification of genes involved in muscle differentiation.

AUTHOR: Wadhwa Renu; Yaguchi Tomoko; Kaur Kamaljit; Suyama Eigo; Kawasaki Hiroyuki; Taira Kazunari; Kaul Sunil C



CORPORATE SOURCE: Gene Function Research Center, National Institute of Advanced Industrial Science & Technology, 1-1-1 Higashi, Tsukuba, Ibaraki 305-8562, Japan.

SOURCE: Journal of biological chemistry, (2004 Dec 3) 279 (49) 51622-9. Electronic Publication: 2004-09-24. Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200501

ENTRY DATE: Entered STN: 20041130  
Last Updated on STN: 20050112  
Entered Medline: 20050111

AB We have employed the hybrid hammerhead ribozyme-based gene discovery system for identification of genes functionally involved in muscle differentiation using in vitro myoblast differentiation assay. The major muscle regulatory genes (MyoD1, Mylk, myosin, myogenin, and Myf5) were identified endorsing the validity of this method. Other gene targets included tumor suppressors and cell cycle regulators (p19ARF and p21WAF1), FGFR-4, fibronectin, Prkg2, Pdk4, fem, and six novel proteins. Functional involvement of three of the identified targets in myoblast differentiation was confirmed by their specific knockdown using ribozymes and siRNA. Besides demonstrating a simple and an effective method of isolation of gene functions involved in muscle differentiation, we report for the first time that overexpression of Fem, a member of the sex-determining family of proteins, caused accelerated myotube formation, and its targeting deferred myoblast differentiation. This functional gene screening is not only helpful in understanding the molecular pathways of muscle differentiation but also to design molecular strategies for myopathologic therapies.

L2 ANSWER 3 OF 20 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 2004441241 MEDLINE

DOCUMENT NUMBER: PubMed ID: 15247279

TITLE: Identification of metastasis-related genes in a mouse model using a library of randomized ribozymes.

AUTHOR: Suyama Eigo; Wadhwa Renu; Kaur Kamaljit; Miyagishi Makoto; Kaul Sunil C; Kawasaki Hiroaki; Taira Kazunari

CORPORATE SOURCE: Department of Chemistry and Biotechnology, School of Engineering, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan.

SOURCE: Journal of biological chemistry, (2004 Sep 10) 279 (37) 38083-6. Electronic Publication: 2004-07-09. Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200410

ENTRY DATE: Entered STN: 20040908  
Last Updated on STN: 20041020  
Entered Medline: 20041019

AB Libraries of randomized ribozymes have considerable potential as tools for the identification of functional genes critically involved in a biological phenotype of interest in vitro. We have used a ribozyme library in an in vivo mouse model to identify genes related to metastasis. We injected weakly metastatic melanoma cells that had been treated with the library intravenously into mice. We then isolated ribozymes that accelerated metastasis from pulmonary tumors that had developed from metastasizing cells. As candidates for metastasis-related genes that were targets of the isolated ribozymes, we identified five unknown and three known genes: stromal interaction

molecule 1 (STIM1), polymerase gamma2 accessory subunit (Polg2), and cytochrome P450, family 2, subfamily d, polypeptide 22 (Cyp2d22). Repression of four of these by small interfering RNAs indeed resulted in the accelerated mobility of cells in in vitro scratch-wound assay. The further characterization of these candidate genes would provide clues to the complex mechanism(s) of metastasis.

L2 ANSWER 4 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-833605 [77] WPIDS

DOC. NO. CPI: C2003-234558

TITLE: A composition for preventing or treating viral infections associated with high lethality and incapacity (e.g. Ebola virus) comprises a filamentous phage presenting a ligand on its surface, and a physiological excipient or diluent.

DERWENT CLASS: B04 D16

INVENTOR(S): ABBOTT, R; BAIRD, A; LAROCCA, D

PATENT ASSIGNEE(S): (SELE-N) SELECTIVE GENETICS INC

COUNTRY COUNT: 103

PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG |
|---|------|----------|-----------|----|----|
| WO 2003086276   | A2   | 20031023 | (200377)* | EN | 82 |
| RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW  |      |          |           |    |    |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW |      |          |           |    |    |
| AU 2003222171   | A1   | 20031027 | (200436)  |    |    |

#### APPLICATION DETAILS:

| PATENT NO     | KIND | APPLICATION     | DATE     |
|---------------|------|-----------------|----------|
| WO 2003086276 | A2   | WO 2003-US10081 | 20030401 |
| AU 2003222171 | A1   | AU 2003-222171  | 20030401 |

#### FILING DETAILS:

| PATENT NO     | KIND        | PATENT NO     |
|---------------|-------------|---------------|
| AU 2003222171 | A1 Based on | WO 2003086276 |

PRIORITY APPLN. INFO: US 2002-370360P 20020405

AN 2003-833605 [77] WPIDS

AB WO2003086276 A UPAB: 20031128

NOVELTY - A composition for treating a microbial infection comprising a filamentous phage presenting a ligand on their surface and a physiological excipient or diluent, where the filamentous phage comprises a heterologous nucleic acid sequence, where the sequence encodes an anti-microbial agent, and where the ligand binds to a group present on the surface of a cell, the group providing portal-level specificity, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) a method for delivery of an anti-microbial agent, comprising contacting a cell with the above-mentioned filamentous phage;
- (2) a method for treating or slowing a microbial infection, comprising contacting a cell with the above-mentioned filamentous phage;
- (3) a kit comprising a container, the filamentous phage cited above, and instructions for use of the filamentous phage in an anti-microbial context;

(4) a filamentous phage particle presenting a ligand on its surface, where the phage genome encodes a gene product under control of a promoter for use in treating a microbial infection;

(5) a method of identifying a microbial epitope involved in host cell attachment or internalization, comprising contacting one or more ligand displaying genetic package with cell(s), where the ligands comprise a microbial epitope, where the packages comprise a nucleic acid encoding a detectable product that is expressed upon internalization of the package, and where the cell(s) is/are capable of being infected by a microbe; detecting product expressed by the cell(s); and recovering a nucleic acid molecule encoding a microbial epitope from the cell(s), thus, identifying a microbial epitope involved in host cell attachment or internalization;

(6) a method of preventing microbial infection, comprising delivering a microbial epitope identified by the above method to a patient; and

(7) a method of inducing an immune response, comprising delivering a microbial epitope identified by the method in (5) to a patient.

ACTIVITY - Virucide. No biological data given.

MECHANISM OF ACTION - Gene therapy; Vaccine.

USE - The composition and methods are useful for portal specific gene delivery and prevention or treatment of microbial infections, particularly viral infections associated with high lethality and incapacity (e.g. Ebola or Variola virus). These may also be used for identifying epitopes and ligands capable of directing internalization of a vector and capable of blocking viral entry.

Dwg.0/0

L2 ANSWER 5 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-290062 [28] WPIDS

DOC. NO. CPI: C2003-075385

TITLE: Evaluating the differentiation of totipotent, nearly totipotent, or pluripotent stem cells in response to chemical or biological agents, comprises exposing the cells to one or more putative differentiation inducing conditions.

DERWENT CLASS: B04 D16

INVENTOR(S): CHAPMAN, K; PAGE, R; SCHOLER, H; WEST, M D

PATENT ASSIGNEE(S): (ADCE-N) ADVANCED CELL TECHNOLOGY INC

COUNTRY COUNT: 102

PATENT INFORMATION:

| PATENT NO     | KIND  | DATE     | WEEK      | LA | PG  |
|---------------|---|----------|-----------|----|-----|
| WO 2003018760 | A2  | 20030306 | (200328)* | EN | 50  |
| RW:           | AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW   |          |           |    |     |
| W:            | AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW |          |           |    |     |
| US 2003224345 | A1  | 20031204 | (200380)  |    |     |
| AU 2002324779 | A1  | 20030310 | (200452)  |    |     |
| EP 1444326    | A2  | 20040811 | (200452)  | EN |     |
| R:            | AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR   |          |           |    |     |
| JP 2005500847 | W   | 20050113 | (200506)  |    | 148 |

APPLICATION DETAILS:

| PATENT NO     | KIND           | APPLICATION     | DATE     |
|---------------|----------------|-----------------|----------|
| WO 2003018760 | A2             | WO 2002-US26945 | 20020826 |
| US 2003224345 | A1 Provisional | US 2001-314316P | 20010824 |

|                 |          |    |               |
|-----------------|----------|----|---------------|
| US 2002-227282  | 20020826 |    |               |
| AU 2002-324779  | 20020826 | A1 | AU 2002324779 |
| EP 2002-759444  | 20020826 | A2 | EP 1444326    |
| WO 2002-US26945 | 20020826 |    |               |
| WO 2002-US26945 | 20020826 |    |               |
| JP 2003-523611  | 20020826 | W  | JP 2005500847 |

FILING DETAILS:

| PATENT NO     | KIND        | PATENT NO     |
|---------------|-------------|---------------|
| AU 2002324779 | A1 Based on | WO 2003018760 |
| EP 1444326    | A2 Based on | WO 2003018760 |
| JP 2005500847 | W Based on  | WO 2003018760 |

PRIORITY APPLN. INFO: US 2001-314316P 20010824; US  
2002-227282 20020826

AN 2003-290062 [28] WPIDS

AB WO2003018760 A UPAB: 20030501

NOVELTY - Evaluating the differentiation of totipotent, nearly totipotent, or pluripotent stem cells, or cells from these cells, in response to one or more chemical or biological agents or physical conditions, comprising exposing the separate wells of cells to one or more putative differentiation inducing conditions simultaneously or sequentially, is new.

DETAILED DESCRIPTION - A method for evaluating the differentiation of totipotent, nearly totipotent, or pluripotent stem cells, or cells from these cells, in response to one or more chemical or biological agents or physical conditions, comprises:

- (a) separating individual totipotent, nearly totipotent, or pluripotent stem cells, or cells from them or groups of such cells, in culture medium into one or several separate wells which may be open or closed, and which may be in the same or different apparatus;
- (b) exposing the separate wells of cells to one or more putative differentiation inducing conditions simultaneously or sequentially; and
- (c) screening the individual cells or groups of cells to detect markers of differentiation of the individual cells or groups of cells.

INDEPENDENT CLAIMS are also included for the following:

- (1) a library of two or more gene trap stem cell lines used simultaneously together to screen and detect agents or conditions that affect differentiation, survival, or proliferation of the stem cells;
- (2) inducing differentiation of a stem cell to form cells of mesodermal lineage by exposing the stem cells to Flt-3;
- (3) inducing differentiation of a stem cell to form cells of mesodermal and neural lineage by exposing the stem cells to TGFbeta-1;
- (4) inducing differentiation of a stem cell to form cells selected from cells of endothelial lineage, and cells of endodermal lineage or appearance, comprising exposing the stem cells to tenascin;
- (5) inducing differentiation of a stem cell comprising exposing the stem cells to Tie-1;
- (6) inducing differentiation of a stem cell to form fibroblasts and/or other cells of connective tissue comprising exposing the stem cells to BMP-2;
- (7) inducing differentiation of a stem cell to form myocardial cells lineage by exposing the stem cells to endothelial inducer cells; and
- (8) inducing differentiation of a stem cell to form cells of mesodermal lineage comprising exposing the stem cells to fibroblast inducer cells.-

USE - The method is useful for identifying, analyzing and characterizing marker genes and gene products that specifically mark key regulatory steps associated with the induction of differentiation of stem cells into each of the important specific cell types. The method is also useful as a systematic, large-scale screening assay for identifying the

combinations of biological, biochemical and physical agents or conditions that act simultaneously or sequentially to induce the differentiation of totipotent, nearly totipotent, or pluripotent stem cells into large number of different specific cell types, and for identifying treatments that may induce cancerous cells to undergo differentiation and inhibit their proliferation.

Dwg.0/21

L2 ANSWER 6 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2003-229409 [22] WPIDS  
 CROSS REFERENCE: 2003-278270 [27]  
 DOC. NO. CPI: C2003-058964  
 TITLE: Increasing the levels of a protein in a Peyer's patch cell, useful for targeted vaccine or drug delivery, comprises delivering to the Peyer's patch cell a transcription factor or an activator of a transcription factor.  
 DERWENT CLASS: B04 D16  
 INVENTOR(S): BRAYDEN, D; BYRNE, D; HIGGINS, L; LAMBKIN, I; O'MAHONY, D; O'MAHONY, D J  
 PATENT ASSIGNEE(S): (ELAN-N) ELAN CORP PLC; (BRAY-I) BRAYDEN D; (BYRN-I) BYRNE D; (HIGG-I) HIGGINS L; (LAMB-I) LAMBKIN I; (OMAH-I) O'MAHONY D; (OMAH-I) O'MAHONY D J  
 COUNTRY COUNT: 101  
 PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG |
|---|------|----------|-----------|----|----|
| WO 2003004646   | A2   | 20030116 | (200322)* | EN | 74 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ<br>NL OA PT SD SE SL SZ TR TZ UG ZM ZW  |      |          |           |    |    |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK<br>DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR<br>KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT<br>RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM<br>ZW |      |          |           |    |    |
| US 2003211476   | A1   | 20031113 | (200382)  |    |    |
| EP 1419252  | A2   | 20040519 | (200433)  | EN |    |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT<br>RO SE SI TR   |      |          |           |    |    |
| AU 2002339215   | A1   | 20030121 | (200452)  |    |    |

#### APPLICATION DETAILS:

| PATENT NO     | KIND           | APPLICATION     | DATE     |
|---------------|----------------|-----------------|----------|
| WO 2003004646 | A2             | WO 2002-IB3866  | 20020404 |
| US 2003211476 | A1 Provisional | US 2001-281387P | 20010404 |
|               | Provisional    | US 2001-302591P | 20010702 |
|               |                | US 2002-116275  | 20020404 |
| EP 1419252    | A2             | EP 2002-777590  | 20020404 |
|               |                | WO 2002-IB3866  | 20020404 |
| AU 2002339215 | A1             | AU 2002-339215  | 20020404 |

#### FILING DETAILS:

| PATENT NO     | KIND        | PATENT NO     |
|---------------|-------------|---------------|
| EP 1419252    | A2 Based on | WO 2003004646 |
| AU 2002339215 | A1 Based on | WO 2003004646 |

PRIORITY APPLN. INFO: US 2001-302591P 20010702; US  
 2001-281387P 20010404; US

AN 2003-229409 [22] WPIDS  
CR 2003-278270 [27]  
AB WO2003004646 A UPAB: 20040813

NOVELTY - Increasing the levels of a protein in a Peyer's patch cell comprises delivering to the cell a nucleic acid coding for a protein, the level of which or its mRNA is greater than in a non-Peyer's patch cell.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method of decreasing the levels of a protein in a Peyer's patch cell;

(2) human cells or their progenies to which the above methods have been applied;

(3) a method for enhancing transport of a drug through the gastrointestinal tract;

(4) a method for facilitating intracellular trafficking of an antigen that has been orally delivered by itself or as part of a composition or particle, by administering a calreticulin protein, rab family proteins or ribosomal proteins;

(5) a chimeric protein comprising the amino acid sequence for calreticulin, rab family proteins and ribosomal proteins, and the amino acid sequence for a second polypeptide;

(6) a method of administering a polypeptide as a part of a chimeric protein which is orally administered;

(7) a method of delivering a vaccine to a target cell by utilizing as the target cell a Peyer's patch cell in which a normally upregulated protein or mRNA is further upregulated;

(8) a method of increasing the extent to which the function of a protein is carried out in a Peyer's patch cell;

(9) a chimeric protein that comprises 2 or more segments, each enhances a different step in the peptide transport process consisting of binding to a cell, transporting the peptide into the cell, transporting the peptide through the cell, and transporting the peptide out of the cell;

(10) a method of targeting a composition or delivery vehicle to a Peyer's patch cell;

(11) a method of selecting for a ligand that will selectively bind to a target in a Peyer's patch cell; and

(12) a method of promoting enterocyte-M cell conversion by orally administering an antigen, antigenic composition or antigen-carrying particle to a person and either simultaneously with or prior to administration, or a bacterium, pro-biotic yogurts or bacterial component to the person.

USE - The method is useful for increasing or decreasing the level of a protein in a Peyer's patch cell, particularly in increasing antigen or vaccine delivery to M cells. The method may also be used to enhance transport of a drug through the gastrointestinal tract.  
Dwg.0/0

L2 ANSWER 7 OF 20 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

ACCESSION NUMBER: 2003437259 EMBASE  
TITLE: New tools for functional mammalian cancer genetics.  
AUTHOR: Brummelkamp T.R.; Bernards R.  
CORPORATE SOURCE: R. Bernards, Division of Molecular Carcinogenesis, Center for Biomedical Genetics, Netherlands Cancer Institute, Plesmanlaan 121, 1066 CX Amsterdam, Netherlands.  
r.bernards@nki.nl  
SOURCE: Nature Reviews Cancer, (2003) 3/10 (781-789).  
Refs: 73  
ISSN: 1474-175X CODEN: NRCAC4  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 016 Cancer  
029 Clinical Biochemistry  
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Knowledge of the function of individual genes that encode components of cell-signalling pathways is crucial to our understanding of normal growth control and its deregulation in cancer, but we have functional information for only .apprx.15% of human genes at present. Several new technologies have recently become available to identify gene function in mammalian cells using high-throughput genetic screens. These new tools will make it possible to identify new and innovative classes of anticancer drugs, including those that show synthetic lethal interactions with cancer-specific mutations.

L2 ANSWER 8 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2002-723312 [78] WPIDS

DOC. NO. CPI: C2002-204801

TITLE: New isolated or recombinant Bcl-B nucleic acids and polypeptides, for treating a disorder associated with apoptosis, such as cell degenerative or proliferative disorder e.g. cancer, Alzheimer's disease or Parkinson's disease.

DERWENT CLASS: B04 C06 D16

INVENTOR(S): GODZIK, A; KE, N; REED, J C

PATENT ASSIGNEE(S): (BURN-N) BURNHAM INST

COUNTRY COUNT: 96

PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG |
|---|------|----------|-----------|----|----|
| WO 2002072601   | A2   | 20020919 | (200278)* | EN | 82 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ<br>NL OA PT SD SE SL SZ TR TZ UG ZM ZW  |      |          |           |    |    |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM<br>DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC<br>LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD<br>SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW |      |          |           |    |    |
| US 2003176671   | A1   | 20030918 | (200362)  |    |    |
| AU 2002256990   | A1   | 20020924 | (200433)  |    |    |

APPLICATION DETAILS:

| PATENT NO     | KIND           | APPLICATION     | DATE     |
|---------------|----------------|-----------------|----------|
| WO 2002072601 | A2             | WO 2002-US3547  | 20020207 |
| US 2003176671 | A1 Provisional | US 2001-267166P | 20010207 |
|               |                | US 2002-71174   | 20020207 |
| AU 2002256990 | A1             | AU 2002-256990  | 20020207 |

FILING DETAILS:

| PATENT NO     | KIND        | PATENT NO     |
|---------------|-------------|---------------|
| AU 2002256990 | A1 Based on | WO 2002072601 |

PRIORITY APPLN. INFO: US 2002-71174 20020207; US  
2001-267166P 20010207

AN 2002-723312 [78] WPIDS

AB WO 200272601 A UPAB: 20021204

NOVELTY - An isolated or recombinant nucleic acid (I) comprising at least 70 % identity to an 887 base pair sequence (S1), given in the specification, where the nucleic acid encodes a polypeptide that modulates

apoptosis, or a sequence that hybridizes to S1 under stringent hybridization conditions, is new. The nucleic acid is distinct from Expressed Sequence Tag accession number AA098865.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an expression cassette comprising a polynucleotide sequence having at least 70 % identity to S1 operably linked to an expression control element;
- (2) a transformed cell comprising the novel nucleic acid;
- (3) a non-human transgenic animal comprising a polynucleotide sequence having at least 70 % identity to S1;
- (4) a transgenic plant comprising a nucleic acid sequence having at least 70 % identity to S1;
- (5) a seed capable of germinating into a plant having in its genome a heterologous nucleic acid sequence having at least about 70% identity to S1;
- (6) an isolated or recombinant polypeptide comprising a sequence having at least 65 % identity to a 204 residue amino acid sequence (S2), given in the specification, and having one or more activities of the polypeptide of S2;
- (7) an antibody that specifically binds to a polypeptide comprising the sequence of S2, or its immunogenic subsequence;
- (8) a chimeric polypeptide comprising the polypeptide of (6), and a second polypeptide sequence;
- (9) a kit comprising (I), the polypeptide of (6), or the antibody of (7) in a container;
- (10) a composition comprising (I), the polypeptide, or the antibody in a carrier;
- (11) producing a polypeptide of (6);
- (12) detecting the presence of a polynucleotide sequence encoding the polypeptide of (6);
- (13) modulating apoptosis of a cell;
- (14) treating a subject having or at risk of a disorder associated with apoptosis;
- (15) identifying a gene or agent that modulates expression, activity, or binding of the polypeptide of (6);
- (16) identifying a molecule that binds to the polypeptide of (6); and
- (17) detecting Bcl-B in a sample.

ACTIVITY - Nootropic; Neuroprotective; Cytostatic; Immunosuppressive; Antiparkinsonian; Vasotropic; Cerebroprotective; Anticonvulsant; Vulnerary.

No biological data is given.

MECHANISM OF ACTION - Bcl 2 Agonist.

USE - The nucleic acids and polypeptides are useful in treating a subject having or at risk of a disorder associated with apoptosis, such as a cell degenerative or proliferative disorder like neural or muscle degeneration, e.g. Alzheimer's disease, Parkinson's disease, Creutzfeldt-Jacob's disease (CJD), Huntington disease (HD), Machado-Joseph disease (MJD), spinocerebellar ataxias 1, 2 and 6 (SCA-1, -2 and -6), dentatorubropallidoluysian atrophy (DRPLA), Kennedy's disease, ischemia, stroke, head trauma, neoplasia, autoimmune disorder or fibrotic condition (claimed). The polynucleotides, polypeptides and antibodies are useful in modulating apoptosis of cells. The transgenic animals can be used as in vivo models to study apoptosis and potential therapies for apoptosis.  
Dwg.0/5

L2 ANSWER 9 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2002-657594 [70] WPIDS  
DOC. NO. CPI: C2002-184574  
TITLE: New human influenza virus comprising an RNA-sequence encoding a modified RNA-polymerase, useful for preparing agents for therapeutic and prophylactic vaccination, or treating a growing tumor or a chronic infectious disease.



DERWENT CLASS: B04 D16  
 INVENTOR(S): HOBOM, G; MENKE, A  
 PATENT ASSIGNEE(S): (ARTE-N) ARTEMIS PHARM GMBH; (HOBOM-I) HOBOM G; (MENK-I) MENKE A  
 COUNTRY COUNT: 101  
 PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG  |
|---|------|----------|-----------|----|-----|
| WO 2002064757   | A2   | 20020822 | (200270)* | EN | 172 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ<br>NL OA PT SD SE SL SZ TR TZ UG ZM ZW  |      |          |           |    |     |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK<br>DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR<br>KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT<br>RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW |      |          |           |    |     |
| EP 1233059  | A1   | 20020821 | (200270)  | EN |     |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT<br>RO SE SI TR   |      |          |           |    |     |
| US 2003099670   | A1   | 20030529 | (200337)  |    |     |
| EP 1368459  | A2   | 20031210 | (200382)  | EN |     |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT<br>RO SE SI TR   |      |          |           |    |     |
| AU 2002247689   | A1   | 20020828 | (200427)  |    |     |
| JP 2004531232   | W    | 20041014 | (200467)  |    | 222 |

#### APPLICATION DETAILS:

| PATENT NO     | KIND           | APPLICATION     | DATE     |
|---------------|----------------|-----------------|----------|
| WO 2002064757 | A2             | WO 2002-EP1257  | 20020207 |
| EP 1233059    | A1             | EP 2001-103060  | 20010209 |
| US 2003099670 | A1 Provisional | US 2001-270135P | 20010220 |
|               |                | US 2002-73377   | 20020208 |
| EP 1368459    | A2             | EP 2002-716735  | 20020207 |
|               |                | WO 2002-EP1257  | 20020207 |
| AU 2002247689 | A1             | AU 2002-247689  | 20020207 |
| JP 2004531232 | W              | JP 2002-565072  | 20020207 |
|               |                | WO 2002-EP1257  | 20020207 |

#### FILING DETAILS:

| PATENT NO     | KIND        | PATENT NO     |
|---------------|-------------|---------------|
| EP 1368459    | A2 Based on | WO 2002064757 |
| AU 2002247689 | A1 Based on | WO 2002064757 |
| JP 2004531232 | W Based on  | WO 2002064757 |

PRIORITY APPLN. INFO: EP 2001-103060 20010209  
 AN 2002-657594 [70] WPIDS  
 AB WO 200264757 A UPAB: 20021031

NOVELTY - A new human influenza virus comprising a RNA-sequence encoding a modified RNA-polymerase that differs from the wild-type RNA-polymerase of the human influenza virus in that at least 1 of the amino acid residue(s) distinguishing the wild-type RNA-polymerase of the human influenza virus from FPV Bratislava RNA-polymerase has been replaced with the corresponding amino acid residue(s) as present in FPV Bratislava RNA-polymerase, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a non-avian, non-human influenza virus, preferably an equine or a porcine influenza virus comprising a RNA-sequence encoding a modified RNA-polymerase that differs from the wild-type RNA-polymerase of the non-avian, non-human influenza virus in that at least one of the amino

acid residue(s) distinguishing the wild-type RNA-polymerase of the non-avian, non-human influenza virus from FPV Bratislava RNA-polymerase has been replaced with the corresponding amino acid residue(s) as present in FPV Bratislava RNA-polymerase;

- (2) a process for preparing the influenza virus cited above;
- (3) a pharmaceutical composition comprising the influenza virus;
- (4) methods for:
  - (a) gene transfer into cells, preferably into mammalian cells, particularly into human cells, by viral infection;
  - (b) gene transfer into antigen-presenting cells, and the use of the obtained product for ex vivo immunotherapy;  
in vivo somatic gene therapy;  
in vivo vaccination, including therapeutic and prophylactic vaccination;
  - (c) eliciting an immune response, including the induction of a T-cell response, preferably a CD4+ T-cell response and/or a CD8 T-cell response, or the induction of an antibody response;
  - (d) treating a growing tumor or a chronic infectious disease;
  - (e) preparing a vaccine; and
  - (f) preventing and/or treating influenza;
- (5) a method for producing proteins or glycoproteins;
- (6) a method for transfer and expression of foreign genes into cells, and for transfer and expression of RNA molecules into cells;
- (7) a method for immunotherapy;
- (8) a method to elicit an immune response directed against an antigen;
- (9) transduced cells, preferably antigen-presenting cells, obtained by the method of (4-a) or (4-b);
- (10) a vaccine for therapeutic or prophylactic purposes comprises:
  - (a) a human influenza virus vaccine comprising the human influenza virus cited above, which encodes the antigen for a membrane protein and in addition contains the membrane protein in the viral envelope;
  - (b) a non-human influenza virus vaccine, preferably an equine or porcine influenza virus vaccine, comprising the virus of (1); or
  - (c) the transduced cells of (9), preferably transduced antigen-presenting cells, particularly (mature) transduced dendritic cells, where the antigen-presenting cells are transduced in vitro;
- (11) a method to identify a polynucleotide sequence encoding at least one HLA-restricted epitope; and
- (12) a method to study gene function.

ACTIVITY - Virucide; Cytostatic; Anti-HIV; Hepatotropic; Antiinflammatory; Immunomodulator.

No biological data given.

MECHANISM OF ACTION - Gene therapy; Vaccine.

USE - The influenza virus is useful for preparing agents for:

- (a) gene transfer into cells, preferably into mammalian cells, particularly into human cells, by viral infection;
- (b) gene transfer into antigen-presenting cells, and the use of the obtained product for ex vivo immunotherapy;  
in vivo somatic gene therapy;  
in vivo vaccination, including therapeutic and prophylactic vaccination;
- (c) eliciting an immune response, including the induction of a T-cell response;
- (d) treating a growing tumor or a chronic infectious disease;
- (e) immunotherapy, preferably for autologous immunotherapy;
- (f) transfer and expression of foreign genes into cells infected by such viruses; or
- (g) transfer and expression of RNA molecules into cells infected by such viruses, preferably the RNA molecules to be expressed are antisense sequences or double-strand sequences relative to the target cellular mRNA molecules, and/or the agent is suitable for sequence-specific gene silencing, preferably by antisense RNA or RNA interference mechanisms such

as ribozyme cleavages of target RNAs (all claimed).

The recombinant viruses can be made for use in vaccines against HIV, hepatitis B or C virus, herpes viruses or papilloma viruses.

Dwg.0/6

L2 ANSWER 10 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2002-557739 [59] WPIDS  
DOC. NO. CPI: C2002-158362  
TITLE: Novel protein complex comprising proteins useful for  
selecting modulators for treating physiological disorders  
e.g. neuronal death, pancreatic cancer, glucose transport  
disorders and diabetes mellitus.  
DERWENT CLASS: B04 D16  
INVENTOR(S): BARTEL, P L; CIMBORA, D M; HEICHMAN, K  
PATENT ASSIGNEE(S): (MYRI-N) MYRIAD GENETICS INC  
COUNTRY COUNT: 100  
PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG |
|---|------|----------|-----------|----|----|
| WO 2002053704   | A2   | 20020711 | (200259)* | EN | 50 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ<br>NL OA PT SD SE SL SZ TR TZ UG ZM ZW  |      |          |           |    |    |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK<br>DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR<br>KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT<br>RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW |      |          |           |    |    |
| US 2002164647   | A1   | 20021107 | (200275)  |    |    |
| AU 2002245214   | A1   | 20020716 | (200427)  |    |    |

#### APPLICATION DETAILS:

| PATENT NO     | KIND           | APPLICATION     | DATE     |
|---------------|----------------|-----------------|----------|
| WO 2002053704 | A2             | WO 2002-US200   | 20020104 |
| US 2002164647 | A1 Provisional | US 2001-259571P | 20010104 |
|               |                | US 2002-35344   | 20020104 |
| AU 2002245214 | A1             | AU 2002-245214  | 20020104 |

#### FILING DETAILS:

| PATENT NO     | KIND        | PATENT NO     |
|---------------|-------------|---------------|
| AU 2002245214 | A1 Based on | WO 2002053704 |

PRIORITY APPLN. INFO: US 2001-259571P 20010104; US  
2002-35344 20020104

AN 2002-557739 [59] WPIDS

AB WO 200253704 A UPAB: 20020916

NOVELTY - An isolated protein complex (I) comprising a first protein (its fragment) and a second protein (its fragment), is new. If the first protein is AKT1, the second protein is FNTA, TRPD, KIAA0728, PPL or Golgin-84, if the first protein is AKT2, the second protein is CLIC1, AKR7A2, or TPRD, and if the first protein is p90RSK, the second protein is KIAA0728 or UNR.

DETAILED DESCRIPTION - An isolated protein complex (I) comprising a first protein (its fragment) and a second protein (its fragment), is new. If the first protein is AKT1, the second protein is FNTA, TRPD, KIAA0728, PPL or Golgin-84, if the first protein is AKT2, the second protein is CLIC1, AKR7A2, or TPRD, and if the first protein is p90RSK, the second protein is KIAA0728 or UNR. In (I), the proteins are AKT1 or AKT2 (serine/threonine protein kinases), farnesyl transferase (FNTA), tetratricopeptide repeat domain (TPRD), periplakin (PPL), chloride

intracellular channel protein 1 (CLIC1), Akt2 and aldo-keto reductase family 7 (AKR7A2), or ribosomal protein S6 kinase (p90RSK).

INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated antibody (II) selectively immunoreactive with (I);
- (2) a non-human animal model (III) for a physiological disorder, where the genome of the animal or its ancestor is modified so that the formation of (I), or the biological activity of (I) is altered;
- (3) a cell line (IV) obtained from (III);
- (4) a host cell (VII) comprising a first and second expression vector;
- (5) screening (M1) for drug candidates capable of modulating the interaction of the proteins of (I), comprising:
  - (a) combining the proteins of (I) in the presence of a drug to form a first complex;
  - (b) combining the proteins in absence of the drug to form a second complex; and
  - (c) comparing the amount of first and second complex, where if the amount of first complex is greater than or less than the amount of the second complex, then the drug is a drug candidate for modulating the interaction of the proteins of (I);
- (6) screening (M2) for drug candidates useful in treating physiological disorder, comprising:
  - (a) measuring the activities of proteins of (I) in presence and absence of a drug; and
  - (b) comparing their activities;
- (7) selecting (M3) modulators of an interaction between a first and second protein, their homolog, derivative or fragment, by contacting the first and second protein in presence of a test compound, and determining the interaction between the proteins;
- (8) selecting (M4) modulators of an interaction between a first and second polypeptide, its homolog, derivative or fragment, comprising:
  - (a) providing in a host cell, a first and second fusion protein having the first and second polypeptide, respectively, where a DNA binding domain and transcription-activating domain are fused to polypeptides, and a reporter gene, where the transcription of the reporter gene is determined by the interaction between the polypeptides;
  - (b) allowing the fusion proteins to interact with each other within the host cell in the presence of a test compound; and
  - (c) determining the presence or absence of expression of the reporter gene;
- (9) identifying (M5) a compound that binds to a protein of (I) in vitro, comprising:
  - (a) contacting a test compound with protein to form a complex; and
  - (b) detecting the formation of a complex by detecting the protein or the compound in the complex, where if a complex is detected, a compound that binds to protein is identified;
- (10) providing (M6) inhibitors or selecting (M7) modulators of an interaction between two polypeptides or their homolog, derivative or fragment, comprising:
  - (a) providing atomic coordinates defining a three-dimensional structure of (I) formed by the polypeptides; and
  - (b) designing or selecting compounds capable of modulating the interaction between the polypeptides based on the atomic coordinates;
- (11) selecting (M8) modulators of a protein, by contacting the protein with a test compound and determining binding of the test compound to the protein of (I);
- (12) a modulator (IX) useful for treating a physiological disorder identified by (I), (M3), (M4), (M7) or (M8);
- (13) compound (X) useful for treating a physiological disorder identified by (M5) or (M6);
- (14) diagnosing (M9) a physiological disorder in an animal, by assaying if (I) is present in a tissue extract, the ability of proteins to form (I), and a mutation in a gene encoding a protein of (I); and

(15) determining (M10) whether a mutation in a gene encoding one of the proteins of (I) is useful for diagnosing a physiological disorder, comprising assaying for the ability of the protein with mutation to form protein complex with the other protein of the protein complex, where the inability to form the complex is indicative of the mutation.

ACTIVITY - Antidiabetic; Cytostatic.

No biological data is given.

MECHANISM OF ACTION - Antisense gene therapy.

USE - (I) is useful for selecting modulators of protein complex. (IX) is useful for modulating in a cell, the interaction between the proteins, and for modulating in a cell a protein complex having a first protein interacting with a second protein, by administering a cell a compound capable of modulating the complex, or a peptide capable of interfering with the interaction between the proteins, where the peptide is associated with a transporter capable of increasing cellular uptake of the peptide. Modulating the protein complex is useful for modulating neuronal death in patient having a physiological disorder, and for treating the disorder. The compound is capable of interfering with the interaction between the proteins, or binding at least one of the proteins, and comprises a peptide having contiguous span of 4 amino acids of the proteins, or a sequence of 4-30 amino acids 75 % identical to a contiguous span of the amino acids of same length, and is capable of binding to any one of the proteins. The compound which modulates the expression of the proteins, is an antibody immunoreactive with the proteins, a nucleic acid encoding an antibody, or is an antisense compound or ribozyme specifically hybridizing to a nucleic acid encoding the proteins or their complement. The peptide is covalently linked to the transporter such as penetratins, d- or l-Tat(49-57), its retro-inverso isomers, L- or D-arginine, L- or D-lysine, L- or D-histidine or L- or D-ornithine oligomers, short peptide sequences derived from fibroblast growth factor, Galparan, and herpes simplex virus-1 (HSV-1) structural protein VP22 or its peptoid analog. (IX) is also useful for modulating activity in a cell of a protein. (VIII)-(XI) are useful for treating physiological disorders such as neuronal death, pancreatic cancer, glucose transport disorders and non-insulin dependent diabetes mellitus, in an animal, especially human. (M9) and (M10) are useful for diagnosing (predisposition or existence of) a physiological disorder in human. (All claimed).

Dwg.0/0

L2 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:726644 CAPLUS

DOCUMENT NUMBER: 137:277545

TITLE: Identification of a caspase 3-independent role of pro-apoptotic factor Bak in TNF- $\alpha$ -induced apoptosis

AUTHOR(S): Suyama, Eigo; Kawasaki, Hiroaki; Taira, Kazunari

CORPORATE SOURCE: School of Engineering, Department of Chemistry and Biotechnology, The University of Tokyo, Hongo, Tokyo, 113-8656, Japan

SOURCE: FEBS Letters (2002), 528(1-3), 63-69

CODEN: FEBLAL; ISSN: 0014-5793

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB By using our recently developed gene discovery system, we have identified Bak, a member of the Bcl-2 family, as a pro-apoptotic factor in the tumor necrosis factor (TNF)- $\alpha$ -induced apoptotic pathway in caspase 3-deficient cells. Unlike Bcl-2, Bak stimulates several apoptotic pathways, however the mol. mechanism(s) of its action remains unclear. For example, it is unclear whether Bak induces apoptosis in caspase 3-deficient cells. In this study, we examined the effects of overexpression of Bak in MCF-7 cells that lack caspase 3. We found that despite the absence of caspase 3 in MCF-7 cells, they were more sensitive to the cell

death effects of Bak as compared to caspase 3-expressing HeLa S3 cells. The targeting of Bak function by ribozymes suggests that Bak is required for the TNF- $\alpha$ -induced apoptotic pathway in caspase 3-deficient cells. This study demonstrates the caspase 3-independent function of Bak in the TNF- $\alpha$ -induced apoptotic pathway.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 12 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2001-451858 [48] WPIDS  
 DOC. NO. CPI: C2001-136527  
 TITLE: New regulatory sequences from the fascin gene, useful for providing dendritic cell-specific expression of e.g. antigens, e.g. for vaccination against tumors and infections.  
 DERWENT CLASS: B04 D16  
 INVENTOR(S): BROS, M; RESKE-KUNZ, A; ROSS, R; ROSS, X  
 PATENT ASSIGNEE(S): (BROS-I) BROS M; (RESK-I) RESKE-KUNZ A B; (ROSS-I) ROSS R; (ROSS-I) ROSS X; (RESK-I) RESKE-KUNZ A  
 COUNTRY COUNT: 95  
 PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG  |
|---|------|----------|-----------|----|-----|
| WO 2001051631   | A2   | 20010719 | (200148)* | GE | 116 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ<br>NL OA PT SD SE SL SZ TR TZ UG ZW<br>W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM<br>DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC<br>LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE<br>SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW |      |          |           |    |     |
| DE 10001169   | A1   | 20010726 | (200150)  |    |     |
| AU 2001031675   | A    | 20010724 | (200166)  |    |     |
| EP 1250430  | A2   | 20021023 | (200277)  | GE |     |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT<br>RO SE SI TR   |      |          |           |    |     |
| US 2004132674   | A1   | 20040708 | (200445)  |    |     |

#### APPLICATION DETAILS:

| PATENT NO     | KIND | APPLICATION      | DATE     |
|---------------|------|------------------|----------|
| WO 2001051631 | A2   | WO 2001-EP362    | 20010112 |
| DE 10001169   | A1   | DE 2000-10001169 | 20000113 |
| AU 2001031675 | A    | AU 2001-31675    | 20010112 |
| EP 1250430    | A2   | EP 2001-903644   | 20010112 |
|               |      | WO 2001-EP362    | 20010112 |
| US 2004132674 | A1   | WO 2001-EP362    | 20010112 |
|               |      | US 2002-181174   | 20021202 |

#### FILING DETAILS:

| PATENT NO     | KIND        | PATENT NO     |
|---------------|-------------|---------------|
| AU 2001031675 | A Based on  | WO 2001051631 |
| EP 1250430    | A2 Based on | WO 2001051631 |

PRIORITY APPLN. INFO: DE 2000-10010188 20000302; DE  
 2000-10001169 20000113

AN 2001-451858 [48] WPIDS  
 AB WO 200151631 A UPAB: 20010829  
 NOVELTY - Regulatory sequences (A) that provide specific expression in dendritic cells (DC).

DETAILED DESCRIPTION - (A) are;

(i) sequences from nucleotides (nt) n to 3069 of a 16951 base pairs (bp) sequence (S72), where n = 1, 1136, 1451, 1621, 1830, 2127, 2410 or 2700;

(ii) sequences in clone DSM 13274 produced by amplification with primers (S37) and (m), where m = 36, 38-44;

(iii) sequences containing at least a functional part of (i) or (ii), able to provide DC-specific expression; and

(iv) sequences that hybridize to (i)-(iii) and provide DC-specific expression.

All numbered sequences are reproduced.

INDEPENDENT CLAIMS are also included for the following:

(1) recombinant nucleic acid (I) containing (A);

(2) vector (II) containing (A) or (I);

(3) preparing (M) genetically modified host cells (III) by transformation with (II);

(4) (III) modified with (A), (I) or (II), or prepared by (M);

(5) nucleic acid (A') of at least 15 nt that hybridizes specifically, under stringent conditions, with one strand of (A);

(6) antigen-specific stimulation (M1) of T cells in vitro;

(7) preparation of pharmaceutical composition from the T cells of (f);

(8) preparation of DC able to stimulate T cell;

(9) preparation of a pharmaceutical composition containing the DC; and

(10) pharmaceutical composition containing (I), (II) or (III), (8) or (9).

ACTIVITY - Antiviral; antibacterial; antifungal; antiparasitic; anti-allergic; neurological; immunomodulatory; apoptotic.

MECHANISM OF ACTION - Induction of DC-specific expression of antigens, immunomodulatory molecules etc.

USE - (A) are used to regulate expression of antigens, immunoregulators, antisense sequences etc. in DC-specific fashion. Recombinant DNA, vectors and host cells that contain (A) are useful:

(i) in vaccines against viruses, bacteria, fungi, parasites, tumors, allergens and plaques in Creutzfeld-Jakob and Alzheimer's disease; and

(ii) for gene therapy of tumors, allergies, infections, autoimmune diseases and transplant rejection.

They can also be provide specific expression of antigens and immunoregulators in DC; for isolation and identification of cell factors and cis-elements from regulatory sequences that mediate DC-specific expression; to determine the degree of maturity of DC and to block transcription factors, by providing binding sites in DC.

ADVANTAGE - (A) provide DC-specific expression of nucleic acid under their control, allowing a more specific regulation of the immune response and eliminating the long and laborious purification of DC (since a complete leucocyte population may be transformed), including transformation in vitro.

Dwg.0/9

L2 ANSWER 13 OF 20

MEDLINE on STN

DUPLICATE 3

ACCESSION NUMBER: 2002073384 MEDLINE

DOCUMENT NUMBER: PubMed ID: 11800557

TITLE: A new and efficient DNA enzyme for the sequence-specific cleavage of RNA.

AUTHOR: Feldman A R; Sen D

CORPORATE SOURCE: Department of Molecular Biology and Biochemistry, Simon Fraser University, Burnaby, British Columbia, V5A 1S6, Canada.

SOURCE: Journal of molecular biology, (2001 Oct 19) 313 (2) 283-94. Journal code: 2985088R. ISSN: 0022-2836.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200202  
ENTRY DATE: Entered STN: 20020125  
Last Updated on STN: 20020205  
Entered Medline: 20020204

AB A new DNA enzyme, the "Bipartite DNAzyme", suitable for the sequence-specific cleavage of RNA, was obtained from a random DNA library by in vitro selection. Only a single family of catalytic molecules emerged from the selection, and a 22 nucleotide consensus sequence common to all clones defined a putative catalytic core. The most abundant clone self-cleaved at a single internal ribonucleotide phosphodiester with a relatively fast  $k(\text{obs})$  value of  $1.7 \text{ min}^{-1}$ , in  $10 \text{ mM MgCl}_2$  at  $23^\circ \text{C}$ . This DNAzyme ("Bipartite I") required divalent cations, with magnesium and manganese most optimally supporting cleavage. A reselection from a mutagenized DNAzyme pool for the ability to cleave at extended RNA substrates yielded an unchanged catalytic core sequence. From this re-selection a DNAzyme ("Bipartite II") capable of sequence-specifically cleaving extended stretches of RNA was derived. A rate versus pH analysis of the Bipartite II DNAzyme revealed a two-phase profile, similar to that reported for the hepatitis delta virus (HDV) ribozyme, suggesting that the Bipartite II DNAzyme and the HDV ribozyme may share similar catalytic strategies. Multiple-turnover kinetics, measured in  $30 \text{ mM MgCl}_2$ , at  $37^\circ \text{C}$ , with an HIV-1-derived RNA substrate, yielded a  $k(\text{cat})$  value of approximately  $1.4 \text{ min}^{-1}$  and a  $K(\text{M})$  value of approximately  $230 \text{ nM}$ , which were of the same order as  $k(\text{cat})$  and  $K(\text{M})$  values measured for other ribozymes and DNAzymes in general use for RNA cleavage. The Bipartite DNAzyme therefore represents a new and potentially useful reagent, both for the processing of RNA transcripts in vitro and for mRNA ablation procedures in vivo.  
Copyright 2001 Academic Press.

L2 ANSWER 14 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2000-137069 [12] WPIDS  
CROSS REFERENCE: 2004-747210 [73]  
DOC. NO. CPI: C2000-042107  
TITLE: New nucleic acid encoding human organic cation transporter-like protein, used for prevention, treatment and diagnosis of e.g. neurological, behavioral or sleep disorders.  
DERWENT CLASS: B04 D16  
INVENTOR(S): GLUCKSMANN, M A; GOODEARL, A J  
PATENT ASSIGNEE(S): (MILL-N) MILLENNIUM PHARM INC  
COUNTRY COUNT: 85  
PATENT INFORMATION:

| PATENT NO  | KIND | DATE     | WEEK      | LA | PG  |
|--|------|----------|-----------|----|-----|
| WO 2000000633  | A1   | 20000106 | (200012)* | EN | 100 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL<br>OA PT SD SE SL SZ UG ZW   |      |          |           |    |     |
| W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB<br>GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV<br>MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT<br>UA UG UZ VN YU ZA ZW |      |          |           |    |     |
| AU 9947294   | A    | 20000117 | (200026)  |    |     |
| EP 1092038   | A1   | 20010418 | (200123)  | EN |     |
| R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE  |      |          |           |    |     |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-----------|------|-------------|------|
|-----------|------|-------------|------|



|               |    |                 |          |
|---------------|----|-----------------|----------|
| WO 2000000633 | A1 | WO 1999-US14880 | 19990629 |
| AU 9947294    | A  | AU 1999-47294   | 19990629 |
| EP 1092038    | A1 | EP 1999-930847  | 19990629 |
|               |    | WO 1999-US14880 | 19990629 |

# FILING DETAILS:

| PATENT NO  | KIND        | PATENT NO     |
|------------|-------------|---------------|
| AU 9947294 | A Based on  | WO 2000000633 |
| EP 1092038 | A1 Based on | WO 2000000633 |

PRIORITY APPLN. INFO: US 1998-107932 19980630

AN 2000-137069 [12] WPIDS

CR 2004-747210 [73]

AB WO 200000633 A UPAB: 20041112

NOVELTY - Isolated nucleic acid molecule (I) encoding the organic cation transporter (OCT)Ip protein, is new.

DETAILED DESCRIPTION - (I) comprises a nucleotide sequence which:

(a) is at least 65% identical to the 2.6 kb or 1644 nucleotide sequences, fully defined in the specification, corresponding to the cDNA and open reading frame of the OCTIp gene, respectively;

(b) comprises at least a 300 nucleotide fragment of the sequences of (a), or is complementary to them;

(c) encodes the 548 residue amino acid sequence (II), fully defined in the specification, corresponding to the OCTIp protein;

(d) comprises a fragment of the sequence of (c), encoding at least 15 contiguous amino acids of it; or

(e) encodes a naturally occurring variant of the protein of (c), and hybridizes to the 2.6kb or 1644 nucleotide sequences under stringent conditions.

INDEPENDENT CLAIMS are also included for the following:

(1) host cells containing (I);

(2) an isolated polypeptide (III) that is a fragment of at least 15 contiguous amino acids from (II), is a natural allelic variant of (II), is encoded by nucleic acid that hybridizes to the 2.6 kb or 1644 nucleotide sequences under stringent conditions, or is encoded by nucleic acid having at least 60% sequence identity with them;

(3) an antibody (Ab) that binds selectively to (III);

(4) recombinant production of (II) or (III) by culturing cells of (1);

(5) a method for detecting (III) by selective binding reaction;

(6) a method for detecting (I) by hybridization with probes or primers;

(7) kits for the methods of (5) and (6);

(8) a method for identifying compounds that bind to (III) or modulate its activity; and

(9) method for modulating activity of (III) by treating it, or a cell that expresses it, with a compound identified by (8).

ACTIVITY - Nootropic; neuroprotective; neuroleptic; anticonvulsant; antiParkinsonian; antidepressant.

MECHANISM OF ACTION - (I) encodes a protein that transports sugars, neurotransmitters and other small organic molecules across plasma membranes or membranes of intracellular organelles or vesicles, or modulates proliferation, differentiation and survival of cells.

USE - (I) is used for recombinant expression of the corresponding protein (II), or its mutants, and its fragments are used as primers and probes for detection of (I), for diagnosis, prognosis, monitoring treatment etc., including detecting mutations, mis-regulation or aberrant post-translational modification, and as therapeutic modulators e.g. antisense, ribozyme, triplex-forming or antigene sequences.

Fragments of (I) may also be used for amplification or mutation of (I),

and for chromosomal mapping, tissue typing or forensic analysis. (II) is used therapeutically, to raise specific antibodies (Ab) and to screen for modulators. Ab are used as modulators of (II), for detecting (II) (in diagnosis etc.) and for affinity purification. Agents that alter expression or activity of (II), e.g. small molecules, antisense reagents or neutralizing antibodies) can affect the concentration of neurotransmitters in and around cells, so can be used to treat or prevent chronic neurological (neurodegenerative) diseases, or behavioral, sleep or eating disorders. Typical of many conditions that might be treated include Alzheimer's, Parkinson's and Huntington's diseases, amyotrophic lateral sclerosis, schizophrenia, panic, depression etc.  
Dwg.0/4

L2 ANSWER 15 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2000-648247 [63] WPIDS  
DOC. NO. NON-CPI: N2000-480498  
DOC. NO. CPI: C2000-196188  
TITLE: Production of transgenic plants by transforming metabolically defective plants with DNA that can complement the defect, eliminating need for e.g. antibiotic resistance markers.  
DERWENT CLASS: C06 D16 P13  
INVENTOR(S): HESSE, H; HOEFGEN, R  
PATENT ASSIGNEE(S): (PLAC) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN  
COUNTRY COUNT: 92  
PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG |
|---|------|----------|-----------|----|----|
| DE 19914792   | A1   | 20001005 | (200063)* |    | 11 |
| WO 2000060101   | A1   | 20001012 | (200063)  | GE |    |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL |      |          |           |    |    |
| OA PT SD SE SL SZ TZ UG ZW  |      |          |           |    |    |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ  |      |          |           |    |    |
| EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK     |      |          |           |    |    |
| LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI     |      |          |           |    |    |
| SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW                          |      |          |           |    |    |
| AU 2000041139   | A    | 20001023 | (200107)  |    |    |

#### APPLICATION DETAILS:

| PATENT NO     | KIND | APPLICATION     | DATE     |
|---------------|------|-----------------|----------|
| DE 19914792   | A1   | DE 1999-1014792 | 19990331 |
| WO 2000060101 | A1   | WO 2000-EP2826  | 20000330 |
| AU 2000041139 | A    | AU 2000-41139   | 20000330 |

#### FILING DETAILS:

| PATENT NO     | KIND       | PATENT NO     |
|---------------|------------|---------------|
| AU 2000041139 | A Based on | WO 2000060101 |

PRIORITY APPLN. INFO: DE 1999-19914792 19990331

AN 2000-648247 [63] WPIDS

AB DE 19914792 A UPAB: 20001205

NOVELTY - Preparation of transgenic plant cells, plant tissues or plants (A) comprises:

- (i) transforming (A) that has a metabolic defect with a DNA molecule (I) that includes a sequence able to complement the defect; and
- (ii) selection of transformants on suitable media.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) (A) transformed this way;
- (2) harvested and replicative materials from the products of (a);
- (3) a method for producing a selection marker for plants;
- (4) a recombinant DNA (Ia) comprising regulatory sequences of a promoter functional in plants linked to (I), optionally also to regulatory sequences that function in plants as transcription terminator and/or polyadenylation signal;
- (5) a vector containing (Ia);
- (6) a host cell containing (Ia) or the vector of (e); and
- (7) a kit comprising (Ia) or the vector of (e), optionally also a suitable plant selection medium.

USE - The method is used to produce transgenic plants, particularly by introducing, as a component of (I), a sequence that encodes a peptide, protein, (anti)sense RNA, viral RNA or ribozyme.

ADVANTAGE - The use of metabolic complementation for selection eliminates the need for antibiotic or herbicide resistance markers, which may alter the normal physiology or morphology of the plant. The amount of foreign nucleic acid in transgenic plants is reduced, and the wild-type phenotype and fertility are restored.

Dwg.0/0

L2 ANSWER 16 OF 20 MEDLINE on STN DUPLICATE 4  
 ACCESSION NUMBER: 2000474248 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 10908352  
 TITLE: RNA aptamers that specifically bind to a 16S ribosomal RNA decoding region construct.  
 AUTHOR: Tok J B; Cho J; Rando R R  
 CORPORATE SOURCE: Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, 45 Shattuck Street, Boston, MA 02115, USA.  
 CONTRACT NUMBER: EY-12375 (NEI)  
 SOURCE: Nucleic acids research, (2000 Aug 1) 28 (15) 2902-10. Journal code: 0411011. ISSN: 1362-4962.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200010  
 ENTRY DATE: Entered STN: 20001012  
 Last Updated on STN: 20010521  
 Entered Medline: 20001005

AB RNA-RNA recognition is a critical process in controlling many key biological events, such as translation and ribozyme functions. The recognition process governing RNA-RNA interactions can involve complementary Watson-Crick (WC) base pair binding, or can involve binding through tertiary structural interaction. Hence, it is of interest to determine which of the RNA-RNA binding events might emerge through an in vitro selection process. The A-site of the 16S rRNA decoding region was chosen as the target, both because it possesses several different RNA structural motifs, and because it is the rRNA site where codon/anticodon recognition occurs requiring recognition of both mRNA and tRNA. It is shown here that a single family of RNA molecules can be readily selected from two different sizes of RNA library. The tightest binding aptamer to the A-site 16S rRNA construct, 109.2-3, has its consensus sequences confined to a stem-loop region, which contains three nucleotides complementary to three of the four nucleotides in the stem-loop region of the A-site 16S rRNA. Point mutations on each of the three nucleotides on the stem-loop of the aptamer abolish its binding capacity. These studies suggest that the RNA aptamer 109.2-3 interacts with the simple 27 nt A-site decoding region of 16S rRNA through their respective stem-loops. The most probable mode of interaction is through complementary WC base pairing, commonly referred to as a loop-loop 'kissing' motif. High affinity binding to the other structural motifs in

the decoding region were not observed.

L2 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:686607 CAPLUS

DOCUMENT NUMBER: 131:318589

TITLE: Human and murine isoforms of the Ob receptor and their use in methods of identifying compounds that modulate body weight

INVENTOR(S): Tartaglia, Louis A.; Tepper, Robert I.; Culpepper, Janice A.

PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA

SOURCE: U.S., 88 pp., Cont.-in-part of U.S. Ser. No. 583,153.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 8

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE                       |
|---|------|----------|-----------------|----------------------------|
| US 5972621  | A    | 19991026 | US 1996-599455  | 19960122                   |
| US 6509189  | B1   | 20030121 | US 1995-570142  | 19951211                   |
| US 6506877  | B1   | 20030114 | US 1995-583153  | 19951228                   |
| US 6548269  | B1   | 20030415 | US 1996-638524  | 19960426                   |
| US 6482927  | B1   | 20021119 | US 1996-708123  | 19960903                   |
| CA 2238569  | AA   | 19970605 | CA 1996-2238569 | 19961127                   |
| WO 9719952  | A1   | 19970605 | WO 1996-US19128 | 19961127                   |
| W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |                            |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |                            |
| AU 9711269  | A1   | 19970619 | AU 1997-11269   | 19961127                   |
| AU 721492   | B2   | 20000706 |                 |                            |
| CN 1211255  | A    | 19990317 | CN 1996-199796  | 19961127                   |
| EP 1019432  | A1   | 20000719 | EP 1996-942110  | 19961127                   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |      |          |                 |                            |
| JP 2001501444   | T2   | 20010206 | JP 1997-520719  | 19961127                   |
| US 6395498  | B1   | 20020528 | US 1997-864564  | 19970528                   |
| US 6287782  | B1   | 20010911 | US 1998-69781   | 19980429                   |
| MX 9804158  | A    | 20000331 | MX 1998-4158    | 19980526                   |
| US 6403552  | B1   | 20020611 | US 1998-94410   | 19980609                   |
| US 6380363  | B1   | 20020430 | US 1998-137132  | 19980819                   |
| US 2002182676   | A1   | 20021205 | US 2002-79625   | 20020219                   |
| PRIORITY APPLN. INFO.:  |      |          |                 | US 1995-562663 A2 19951127 |
|   |      |          |                 | US 1995-566622 A2 19951204 |
|   |      |          |                 | US 1995-569485 A2 19951208 |
|   |      |          |                 | US 1995-570142 A2 19951211 |
|   |      |          |                 | US 1995-583153 A2 19951228 |
|   |      |          |                 | US 1995-562633 B2 19951127 |
|   |      |          |                 | US 1996-599455 A2 19960122 |
|   |      |          |                 | US 1996-638524 A2 19960426 |
|   |      |          |                 | US 1996-708123 A 19960903  |
|   |      |          |                 | WO 1996-US19128 W 19961127 |
|   |      |          |                 | US 1997-864564 A2 19970528 |

AB The present invention relates to the discovery, identification and characterization of nucleotides that encode Ob receptor (ObR), a receptor protein that participates in mammalian body weight regulation. Murine obR cDNA was identified using an alkaline phosphatase/Ob fusion protein to screen

an expression library of cDNAs synthesized from murine choroid plexus mRNA and transiently transfected into mammalian COS cells. A clone, famj5312, expressing the short form of a high affinity receptor for Ob was identified and sequenced. Sequence anal. revealed that the obR cDNA and predicted amino acid sequence are novel sequences containing amino acid regions indicating that ObR is a member of the Class I family of receptor proteins. Mapping studies demonstrate that the obR gene maps to the db locus, and that the db gene is a mutant obR gene which expresses an aberrantly spliced obR long form message that encodes a protein identical to the short form murine ObR. The famj5312 sequence was utilized to screen a human fetal brain cDNA library, which resulted in the identification of a human obR cDNA clone fahj5312d, and oligonucleotide primers designed on the basis of the human cDNA sequence were used to clone the human genomic DNA. The mRNA encoding the murine long form of ObR was cloned from murine hypothalamus using degenerate primers designed on the human ObR cytoplasmic domain. The invention encompasses obR nucleotides, host cell expression systems, ObR proteins, fusion proteins, polypeptides and peptides, antibodies to the receptor, transgenic animals that express an obR transgene, or recombinant knock-out animals that do not express the ObR, antagonists and agonists of the receptor, and other compds. that modulate obR gene expression or ObR activity that can be used for diagnosis, drug screening, clin. trial monitoring, and/or the treatment of body weight disorders, including but not limited to obesity, cachexia and anorexia.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 18 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1999-562113 [47] WPIDS  
 DOC. NO. NON-CPI: N1999-415277  
 DOC. NO. CPI: C1999-163992  
 TITLE: New receptor interacting protein-associated protein-2, used to develop products for treating, e.g. septic shock, tumors or HIV infection.  
 DERWENT CLASS: B04 D16 S03  
 INVENTOR(S): HORWITZ, M S; KOVALENKO, A; LI, Y; WALLACH, D; HOROWITZ, M  
 PATENT ASSIGNEE(S): (YESH) UNIV YESHIVA EINSTEIN COLLEGE; (YEDA) YEDA RES & DEV CO LTD  
 COUNTRY COUNT: 86  
 PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG  |
|---|------|----------|-----------|----|-----|
| WO 9947672  | A1   | 19990923 | (199947)* | EN | 131 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL |      |          |           |    |     |
| OA PT SD SE SL SZ UG ZW   |      |          |           |    |     |
| W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD  |      |          |           |    |     |
| GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV     |      |          |           |    |     |
| MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT     |      |          |           |    |     |
| UA UG US UZ VN YU ZA ZW   |      |          |           |    |     |
| AU 9929545  | A    | 19991011 | (200008)  |    |     |
| NO 2000004649   | A    | 20001030 | (200063)  |    |     |
| BR 9909659  | A    | 20001121 | (200065)  |    |     |
| EP 1062336  | A1   | 20001227 | (200102)  | EN |     |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  |      |          |           |    |     |
| RO SE SI  |      |          |           |    |     |
| CZ 2000003421   | A3   | 20010314 | (200117)  |    |     |
| SK 2000001376   | A3   | 20010312 | (200126)  |    |     |
| CN 1295614  | A    | 20010516 | (200146)  |    |     |
| KR 2001034563   | A    | 20010425 | (200164)  |    |     |
| JP 2002506644   | W    | 20020305 | (200220)  |    | 134 |
| ZA 2000004756   | A    | 20020227 | (200223)  |    | 141 |

AU 760900 B 20030522 (200338)  
 MX 2000009138 A1 20020301 (200362)  
 NZ 506776 A 20030829 (200365)  
 HU 2001001612 A2 20040128 (200415)  
 US 6734174 B1 20040511 (200431)  
 AU 2003200969 A1 20030612 (200456) #  
 EP 1454985 A2 20040908 (200459) EN  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI  
 US 2004219615 A1 20041104 (200474)  
 NZ 525566 A 20041224 (200506)

APPLICATION DETAILS:

| PATENT NO     | KIND                | APPLICATION    | DATE     |
|---------------|---------------------|----------------|----------|
| WO 9947672    | A1                  | WO 1999-IL158  | 19990318 |
| AU 9929545    | A                   | AU 1999-29545  | 19990318 |
| NO 2000004649 | A                   | WO 1999-IL158  | 19990318 |
|               |                     | NO 2000-4649   | 20000918 |
| BR 9909659    | A                   | BR 1999-9659   | 19990318 |
|               |                     | WO 1999-IL158  | 19990318 |
| EP 1062336    | A1                  | EP 1999-910646 | 19990318 |
|               |                     | WO 1999-IL158  | 19990318 |
| CZ 2000003421 | A3                  | WO 1999-IL158  | 19990318 |
|               |                     | CZ 2000-3421   | 19990318 |
| SK 2000001376 | A3                  | WO 1999-IL158  | 19990318 |
|               |                     | SK 2000-1376   | 19990318 |
| CN 1295614    | A                   | CN 1999-804151 | 19990318 |
| KR 2001034563 | A                   | KR 2000-709953 | 20000908 |
| JP 2002506644 | W                   | WO 1999-IL158  | 19990318 |
|               |                     | JP 2000-536855 | 19990318 |
| ZA 2000004756 | A                   | ZA 2000-4756   | 20000908 |
| AU 760900     | B                   | AU 1999-29545  | 19990318 |
| MX 2000009138 | A1                  | WO 1999-IL158  | 19990318 |
|               |                     | MX 2000-9138   | 20000918 |
| NZ 506776     | A                   | NZ 1999-506776 | 19990318 |
|               |                     | WO 1999-IL158  | 19990318 |
| HU 2001001612 | A2                  | WO 1999-IL158  | 19990318 |
|               |                     | HU 2001-1612   | 19990318 |
| US 6734174    | B1                  | WO 1999-IL158  | 19990318 |
|               |                     | US 2001-646403 | 20010221 |
| AU 2003200969 | A1 Div ex           | AU 1999-29545  | 19990318 |
|               |                     | AU 2003-200969 | 20030312 |
| EP 1454985    | A2 Div ex           | EP 1999-910646 | 19990318 |
|               |                     | EP 2004-1075   | 19990318 |
| US 2004219615 | A1 Div ex<br>Div ex | WO 1999-IL158  | 19990318 |
|               |                     | US 2001-646403 | 20010221 |
|               |                     | US 2004-761370 | 20040122 |
| NZ 525566     | A Div ex            | NZ 1999-506776 | 19990318 |
|               |                     | NZ 1999-525566 | 19990318 |

FILING DETAILS:

| PATENT NO     | KIND             | PATENT NO  |
|---------------|------------------|------------|
| AU 9929545    | A Based on       | WO 9947672 |
| BR 9909659    | A Based on       | WO 9947672 |
| EP 1062336    | A1 Based on      | WO 9947672 |
| CZ 2000003421 | A3 Based on      | WO 9947672 |
| SK 2000001376 | A3 Based on      | WO 9947672 |
| JP 2002506644 | W Based on       | WO 9947672 |
| AU 760900     | B Previous Publ. | AU 9929545 |

|               |    |          |            |
|---------------|----|----------|------------|
|               |    | Based on | WO 9947672 |
| MX 2000009138 | A1 | Based on | WO 9947672 |
| NZ 506776     | A  | Div in   | NZ 525566  |
|               |    | Based on | WO 9947672 |
| HU 2001001612 | A2 | Based on | WO 9947672 |
| US 6734174    | B1 | Based on | WO 9947672 |
| EP 1454985    | A2 | Div ex   | EP 1062336 |
| US 2004219615 | A1 | Div ex   | US 6734174 |
| NZ 525566     | A  | Div ex   | NZ 506776  |

PRIORITY APPLN. INFO: IL 1998-126024 19980901; IL  
1998-123758 19980319; AU  
2003-200969 20030312

AN 1999-562113 [47] WPIDS  
AB WO 9947672 A UPAB: 19991116

NOVELTY - Isolated receptor interacting protein (RIP)-associated protein-2 is new.

DETAILED DESCRIPTION - (A) A novel DNA sequence encodes a receptor interacting protein (RIP)-associated protein (RAP-2), isoforms, fragments or analogs, where the RAP-2, isoforms, fragments or analogs are capable of binding to RIP.

INDEPENDENT CLAIMS are also included for the following:

- (1) a replicable expression vehicle comprising a DNA sequence as in (A), optionally operatively linked with control sequences, promoters or other DNA sequences allowing expression in the correct orientation;
- (2) transformed eukaryotic or prokaryotic host cells containing a replicable expression vehicle as in (1);
- (3) a RAP-2 protein, isoform, fragment, functional analogs or derivatives encoded by a DNA sequence as in (A), the protein, isoform, fragment, analogs and derivatives being capable of binding to RIP;
- (4) antibodies or active fragment or derivatives, specific for a RAP-2 protein, isoform, fragment, analog or derivative as in (3);
- (5) a method for modulating the RIP effect on cells comprising applying the ribozyme procedure in which a vector encoding a ribozyme sequence capable of interacting with a cellular mRNA sequence encoding a RAP-2 protein as in (3), is introduced into the cells in a form that permits expression of the ribozyme sequence in the cells, and where when the ribozyme is expressed in the cells it interacts with the cellular mRNA sequence and cleaves the mRNA sequence resulting in the inhibition of expression of the RAP-2 protein in the cells;

(6) a DNA sequence encoding a RAP-2 binding protein, isoforms, fragments or analogs, the RAP-2 binding protein, isoforms, fragments or analogs capable of binding to RAP-2;

(7) a RAP-2 binding protein capable of binding to RAP-2 and/or modulating/mediating the function of RAP-2;

(8) isolating and identifying proteins capable of binding to RAP-2, comprising applying the yeast 2-hybrid procedure in which a sequence encoding the RAP-2 is carried by one hybrid vector, and sequence from a cDNA or genomic DNA library is carried by the second hybrid vector, the vectors then being used to transform yeast host cells and the positive transformed cells being isolated, followed by extraction of the second hybrid vector to obtain a sequence encoding a protein which binds to the RAP-2, and

(9) a RAP-2 binding protein being a protein encoded by clone 10.

USE - The RAP-2 proteins, isoforms, analogs, fragments or derivatives or DNA can be used for the modulation or mediation of the RIP modulated/mediated intracellular effects on the inflammation, cell death or cell survival pathways in which RIP is involved directly, or indirectly via other modulators/mediators of these pathways (claimed). They can be used for treating e.g. septic shock, graft versus host rejection, acute hepatitis, diabetes or multiple sclerosis. They can also be used for treating tumor cells or HIV-infected cells or other diseased cells

(claimed). The RAP-2 binding proteins can be used for modulating/mediating the function of RAP-2 (claimed). The products can also be used for diagnostic purposes, e.g. for identifying disorders related to abnormal functioning of cellular effects mediated by the p55-R, FAS-R or other related receptors.  
Dwg.0/13

L2 ANSWER 19 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
ACCESSION NUMBER: 1996-179901 [18] WPIDS  
CROSS REFERENCE: 1997-385291 [35]; 1997-385353 [35]; 1997-385466 [35];  
1997-393674 [36]; 1997-549757 [50]  
DOC. NO. CPI: C1996-056786  
TITLE: Human haematopoietin receptor Hu-B1.219 - useful in design of molecular probes for prenatal testing and cancer diagnosis.  
DERWENT CLASS: B04 D16  
INVENTOR(S): CIOFFI, J; SHAFER, A W; SNODGRASS, R H; ZUPANCIC, T J; SNODGRASS, H R  
PATENT ASSIGNEE(S): (PROG-N) PROGENITOR INC; (INDE-N) INDEVUS PHARM INC  
COUNTRY COUNT: 66  
PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG |
|---|------|----------|-----------|----|----|
| WO 9608510  | A1   | 19960321 | (199618)* | EN | 67 |
| RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG |      |          |           |    |    |
| W: AM AU BB BG BR BY CA CN CZ EE FI GE HU IS JP KG KP KR KZ LK LR LT  |      |          |           |    |    |
| LV MD MG MK MN MX NO NZ PL RO RU SG SI SK TJ TM TT UA UZ VN           |      |          |           |    |    |
| AU 9534194  | A    | 19960329 | (199628)  |    |    |
| EP 730606   | A1   | 19960911 | (199641)  | EN |    |
| R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE                 |      |          |           |    |    |
| EP 730606   | A4   | 19970312 | (199729)  |    |    |
| US 5643748  | A    | 19970701 | (199732)  |    | 23 |
| AU 689948   | B    | 19980409 | (199827)  |    |    |
| US 5763211  | A    | 19980609 | (199830)  |    |    |
| JP 10511079   | W    | 19981027 | (199902)  |    | 66 |
| US 5869610  | A    | 19990209 | (199913)  |    |    |
| US 6005080  | A    | 19991221 | (200006)  |    |    |
| KR 245529   | B1   | 20000215 | (200118)  |    |    |
| US 6524806  | B1   | 20030225 | (200323)  |    |    |
| JP 2003174895   | A    | 20030624 | (200351)  |    | 28 |
| JP 3479892  | B2   | 20031215 | (200401)  |    | 36 |

# APPLICATION DETAILS:

| PATENT NO   | KIND     | APPLICATION     | DATE     |
|-------------|----------|-----------------|----------|
| WO 9608510  | A1       | WO 1995-US10965 | 19950830 |
| AU 9534194  | A        | AU 1995-34194   | 19950830 |
| EP 730606   | A1       | EP 1995-931007  | 19950830 |
|             |          | WO 1995-US10965 | 19950830 |
| EP 730606   | A4       | EP 1995-931007  |          |
| US 5643748  | A        | US 1994-306231  | 19940914 |
| AU 689948   | B        | AU 1995-34194   | 19950830 |
| US 5763211  | A CIP of | US 1994-306231  | 19940914 |
|             |          | US 1994-355888  | 19941214 |
| JP 10511079 | W        | WO 1995-US10965 | 19950830 |
|             |          | JP 1996-510211  | 19950830 |
| US 5869610  | A CIP of | US 1994-306231  | 19940914 |
|             | Div ex   | US 1994-355888  | 19941214 |
|             |          | US 1996-693697  | 19960805 |
| US 6005080  | A CIP of | US 1994-306231  | 19940914 |
|             | Div ex   | US 1994-355888  | 19941214 |



|               |           |                 |          |
|---------------|-----------|-----------------|----------|
| KR 245529     | B1        | US 1996-693696  | 19960805 |
|               |           | WO 1995-US10965 | 19950830 |
| US 6524806    | B1 CIP of | KR 1996-702513  | 19960514 |
|               | Div ex    | US 1994-306231  | 19940914 |
|               | Cont of   | US 1994-355888  | 19941214 |
|               |           | US 1996-693696  | 19960805 |
| JP 2003174895 | A Div ex  | US 1999-357914  | 19990719 |
|               |           | JP 1996-510211  | 19950830 |
| JP 3479892    | B2        | JP 2002-290121  | 19950830 |
|               |           | WO 1995-US10965 | 19950830 |
|               |           | JP 1996-510211  | 19950830 |

# FILING DETAILS:

| PATENT NO   | KIND              | PATENT NO   |
|-------------|-------------------|-------------|
| AU 9534194  | A Based on        | WO 9608510  |
| EP 730606   | A1 Based on       | WO 9608510  |
| AU 689948   | B Previous Publ.  | AU 9534194  |
|             | Based on          | WO 9608510  |
| US 5763211  | A CIP of          | US 5643748  |
| JP 10511079 | W Based on        | WO 9608510  |
| US 5869610  | A CIP of          | US 5643748  |
|             | Div ex            | US 5763211  |
| US 6005080  | A CIP of          | US 5643748  |
|             | Div ex            | US 5763211  |
| US 6524806  | B1 CIP of         | US 5643748  |
|             | Div ex            | US 5763211  |
|             | Cont of           | US 6005080  |
| JP 3479892  | B2 Previous Publ. | JP 10511079 |
|             | Based on          | WO 9608510  |

PRIORITY APPLN. INFO: US 1994-355888 19941214; US  
1994-306231 19940914; US  
1996-693697 19960805; US  
1996-693696 19960805; US  
1999-357914 19990719

AN 1996-179901 [18] WPIDS  
CR 1997-385291 [35]; 1997-385353 [35]; 1997-385466 [35]; 1997-393674 [36];  
1997-549757 [50]

AB WO 9608510 A UPAB: 20040102

An isolated human haematopoietin receptor protein, Hu-B1.219, is new. Also claimed are: (1) an isolated nucleotide sequence, especially cDNA, encoding Hu-B1.219; (2) a recombinant DNA vector containing the cDNA of (1); (3) a recombinant DNA vector, encoding a Hu-B1.219 fusion protein; (4) an engineered host cell or cell line, contg., the vector of (2) or (3), which expresses the protein or fusion protein; (5) an oligonucleotide encoding (i) an antisense sequence or (ii) a ribozyme sequence complementary to the cDNA sequence of (1), which inhibits translation of the Hu-B1.219 gene in a cell; and (6) an antibody (Ab) that binds to Hu-B1.219 protein which is pref. a monoclonal Ab (MAb).

USE - The Hu-B1.219 protein is a novel member of the haematopoietin receptor family. The receptor (whether in soluble form or expressed on the cell surface and opt. as part of a fusion protein) is useful for screening peptide libraries to identify ligands of Hu-B1.219 (claimed). Expression of Hu-B1.219 DNA is detected in human foetal tissues and cancer cells and hence is useful for designing molecular probes for prenatal testing and diagnosis of cancer associated with the lympho-haematopoietic system. The DNA sequences can also be used in gene therapy to treat conditions resulting from aberrant expression of Hu-B1.219. Antisense molecules and ribozymes are useful for inhibiting translation of Hu-B1.219 in cases of cellular overproliferation, e.g. to treat chronic myelogenous leukaemia.

Dwg.0/4

ABEQ US 5643748 A UPAB: 19970806

A novel isolated nucleic acid molecule, comprises a nucleotide sequence that hybridises under stringent conditions to a second nucleic acid molecule having nucleotides 143-672 of the 1707 nucleotide cDNA sequence given in the specification, or its complement.

Dwg.0/5

L2 ANSWER 20 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1993:499611 BIOSIS

DOCUMENT NUMBER: PREV199396123618

TITLE: A 127 kDa component of a UV-damaged DNA-binding complex, which is defective in some xeroderma pigmentosum group E patients, is homologous to a slime mold protein.

AUTHOR(S): Takao, Masashi; Abramic, Marija; Otrin, Malcolm, Jr. Moos. Vesna Rasic'; Wooton, John C.; McLenigan, Mary; Levine, Arthur S.; Protic, Miroslava [Reprint author]

CORPORATE SOURCE: NIH, NICHD, Building 6, Room 1A-15, Bethesda, MD 20892, USA  
SOURCE: Nucleic Acids Research, (1993) Vol. 21, No. 17, pp. 4111-4118.

CODEN: NARHAD. ISSN: 0305-1048.

DOCUMENT TYPE: Article

LANGUAGE: English

OTHER SOURCE: Genbank-L20216

ENTRY DATE: Entered STN: 5 Nov 1993

Last Updated on STN: 13 Jan 1994

AB A cDNA which encodes a approx 127 kDa UV-damaged DNA-binding (UV-DDB) protein with high affinity for (6-4)pyrimidine dimers (Abramic', M., Levine, A.S. and Protic', M., J. Biol. Chemical 266:22493-22500, 1991) has been isolated from a monkey cell cDNA library. The presence of this protein in complexes bound to UV-damaged DNA was confirmed by immunoblotting. The human cognate of the UV-DDB gene was localized to chromosome 11. UV-DDB mRNA was expressed in all human tissues examined, including cells from two patients with xeroderma pigmentosum (group E) that are deficient in UV-DDB activity, which suggests that the binding defect in these cells may reside in a dysfunctional UV-DDB protein. Database searches have revealed significant homology of the UV-DDB protein sequence with partial sequences of yet uncharacterized proteins from Dictyostelium discoideum (44% identity over 529 amino acids) and Oryza sativa (54% identity over 74 residues). According to our results, the UV-DDB polypeptide belongs to a highly conserved, structurally novel family of proteins that may be involved in the early steps of the UV response, e.g., DNA damage recognition.

=> FIL STNGUIDE

COST IN U.S. DOLLARS

| SINCE FILE | TOTAL   |
|------------|---------|
| ENTRY      | SESSION |
| 153.43     | 153.64  |

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

| SINCE FILE | TOTAL   |
|------------|---------|
| ENTRY      | SESSION |
| -1.46      | -1.46   |

CA SUBSCRIBER PRICE

FILE 'STNGUIDE' ENTERED AT 20:14:29 ON 19 MAR 2005

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE

AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Mar 18, 2005 (20050318/UP).

=>

Connection closed by remote host